



A.D. 1861, *9th August.* N° 1991.

S P E C I F I C A T I O N

OF

ADRIEN FERDINAND BENJAMIN FALGAS.

TRUSSES, BANDAGES, AND GIRDLES.

LONDON:

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY:

PUBLISHED AT THE GREAT SEAL PATENT OFFICE,
25, SOUTHAMPTON BUILDINGS, HOLBORN.

Price 7d.

1862.



A.D. 1861, 9th AUGUST. N° 1991.

Trusses, Bandages, and Girdles.

LETTERS PATENT to Adrien Ferdinand Benjamin Falgas, of 51, Rue de Malte, Paris, in the Empire of France, for the Invention of “**IMPROVEMENTS IN THE CONSTRUCTION OF TRUSSES AND BANDAGES FOR HERNIA, AND OF HYPOGASTRIC GIRDLES OR BELTS.**”

Sealed the 24th January 1862, and dated the 9th August 1861.

PROVISIONAL SPECIFICATION left by the said Adrien Ferdinand Benjamin Falgas at the Office of the Commissioners of Patents, with his Petition, on the 9th August 1861.

I, ADRIEN FERDINAND BENJAMIN FALGAS, of 51, Rue de Malte, Paris, in
5 the Empire of France, do hereby declare the nature of the said Invention
for “**IMPROVEMENTS IN THE CONSTRUCTION OF TRUSSES AND BANDAGES FOR HERNIA,
AND OF HYPOGASTRIC GIRDLES OR BELTS,**” to be as follows :—

The object of this Invention is to construct trusses, hernial bandages, and
hypogastric girdles with means whereby the wearer may adjust the pad or
10 cushion as he (or she) finds suitable.

Falgas' Improvements in the Construction of Trusses, Bandages, and Girdles.

For this purpose the pad or cushion is arranged with a rotula or ball-and-socket adjustment, that is to say, the pad or cushion is on a stem or shank, with a spherical or rounded head fitted in a socket cup, or spherical or rounded recess (rotula or ball-and-socket fashion), whereby the wearer can readily place the pad at the desired inclination or position, and it is there 5 retained by a screw.

SPECIFICATION in pursuance of the conditions of the Letters Patent, filed by the said Adrien Ferdinand Benjamin Falgas in the Great Seal Patent Office on the 7th February 1862.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, ADRIEN 10
FERDINAND BENJAMIN FALGAS, of 51, Rue de Malte, Paris, in the Empire of
France, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Ninth day of August, in the year of our Lord One thousand eight hundred and sixty-one, in the twenty-fifth year of Her reign, 15 did, for Herself, Her heirs and successors, give and grant unto me, the said Adrien Ferdinand Benjamin Falgas, Her special licence that I, the said Adrien Ferdinand Benjamin Falgas, my executors, administrators, and assigns, or such others as I, the said Adrien Ferdinand Benjamin Falgas, my executors, administrators, and assigns, should at any time agree with, and no others, 20 from time to time and at all times thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for "IMPROVEMENTS IN THE CONSTRUCTION OF TRUSSES AND BANDAGES FOR HERNIA, AND OF HYPOGASTRIC GIRDLES OR BELTS," upon 25 the condition (amongst others) that I, the said Adrien Ferdinand Benjamin Falgas, my executors or administrators, by an instrument in writing under my, or their, or one of their hands and seals, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in 30 the Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters Patent.

NOW KNOW YE, that I, the said Adrien Ferdinand Benjamin Falgas, do hereby declare the nature of the said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in 35

Falgas' Improvements in the Construction of Trusses, Bandages, and Girdles.

and by the following statement thereof, reference being had to the accompanying Drawings, and to the letters and figures marked thereon, that is to say :—

My Invention relates to trusses and bandages for hernia, and is likewise applicable to hypogastric girdles or belts worn by women in various cases of displacement of the womb.

The object of my Invention is to afford means whereby the wearer may place or adjust the pad or cushion of the truss, bandage, girdle, or belt at any suitable inclination or position at which he or she finds the most comfort, ease, or relief, and after having adjusted it to such desired position may there retain it. For this purpose I employ an arrangement or apparatus herein-after described, constituting a ball-and-socket adjustment or arrangement, in which a ball or a spherical or rounded knob or head fits in a socket, cup, or rounded recess (rotula or ball-and-socket fashion) and which is so combined with the pad or cushion of the truss, bandage, girdle, or belt, that the wearer can readily place or adjust such pad or cushion at the desired inclination or position and retain it there by a screw as herein-after explained.

I call my apparatus or arrangement the “volviform” apparatus (thereby implying that I turn and tighten), and it is constructed as follows :—An essential portion of my “volviform” apparatus is a rod, shank, arm, or strip, having at one end a ball or round knob, and slotted longitudinally to receive screws whereby it is connected to the spring bandage or girdle, so that the latter may be lengthened or shortened round the person as required. Another essential portion of the volviform apparatus is a cup or socket which receives the ball. This socket is on an arm which also carries the arrangements which act on or move the ball to retain the socket in the desired position. On this arm is also a concave plate, preferably of iron or thin steel, which, when covered or padded with wool, silk, leather, or other suitable soft substance, constitutes the “pad,” which being thus attached to the socket can be inclined in various directions by the wearer, and be thereby accommodated to such position as may best suit his ease and comfort.

Various arrangements may be employed for retaining the ball in its position in the socket; some of these are exemplified in the accompanying Drawings.

The Drawing is on the scale of the most convenient actual size. In all the Figures the same letters indicate like parts.

Figure 1 is a section, Figure 1^{bis}, top view, and Figure 1^{ter}, end view of the socket B. L is an arm preferably composed of malleable or cast iron or steel, on which is placed the pad or cushion, not shewn in these three Figures,

Falgas' Improvements in the Construction of Trusses, Bandages, and Girdles.

and which arm may be in a piece with the socket B, as in these Figures and in Figure 9, or it may be in two parts, as in Figure 8.

Figure 2 is a front view, and Figure 2^{bis}, top view of an arm or shank *a*, (composed of steel or malleable iron) which carries the ball or knob A. This arm *a* is slotted at *e, e*, to adjust the truss as to length. 5

Figure 3 is a section, and Figure 3^{bis}, side view of a nut J which receives the binding screw V, and is itself screwed under the arm L, and so retains the pad holder P, which is thus compressed between the nut J and the arm L.

Figure 4 is a front view of the screw V, which passes loosely through an orifice *l* in the arm L, and is screwed into the nut J. 10

Figure 5 is a front view of a bar or rod H; its end I, which is cone shaped and recessed, takes into the socket B, and bears against the ball A. To render its pressure more effective, the inside of the recess I may be corrugated with small asperities, which dig into the ball A. The other end *m* of the arm H 15 takes into the nut J, and is bevilled so that the bevilled end of the screw V may press against this bevilled end *m*, and so cause the rod H to slide along and press against the ball A.

Figure 6 is a front view of the plate P, but its shape and size may be varied as required. 20

Figure 7 is a front view, and Figure 7^{bis}, top view of the hernial bandage fitted up with its volviform apparatus, indicated by the letters A, B, L, *a*, V, P, and herein-before described. R, R, is the bandage or spring of the truss, which may consist of a spring clothed with leather as is usual; P, P¹, is the pad or cushion, which may consist of padded leather, stuffed silk, or other usual 25 substance, and is fastened to the plate P by tacking *p, p*. The arm *a* is attached to the spring R by screws and nuts *s, s*, the screws traversing the slot *e, e*, whereby the truss may be lengthened or shortened as desired.

In this modification the pad P, P¹ and the whole apparatus is retained in the desired position by tightening the screw V, thereby causing the bar H to 30 slide along and to bear against the ball A. But other arrangements may be adopted for tightening or retaining the ball and pad in position.

Figure 8 shews one of such arrangements. *d* is a screw inserted in a nut D attached to the arm L. The screw *d* is also held in a collar *f* firmly fixed to the arm L, in which collar this screw is free to be turned round and moved 35 longitudinally. The screw *d* has at one end a small toothed wheel or pinion *c*, into which gears another toothed wheel *c*¹, on the axis of which is a knob or ring, by means of which the wheels *c, c*¹, and hence the screw *d* may

Falgas' Improvements in the Construction of Trusses, Bandages, and Girdles.

be turned so as to tighten or loosen the ball A according to the direction in which the screw is caused to turn. In this arrangement the socket is in two parts *b*, *b*¹, screwed together, each part being recessed hemispherically so as to constitute the socket, the arm L is in a piece with the portion *b*.

5 Figure 9 represents a more simple arrangement, in which a screws *v* screws into the thickness of the socket B. The head of this screw *v* consists of a large knob, or it may be a flat ring M, which, when the screw is tightened up, is folded down against the socket. The end of the screw is either hollow or pointed. If the latter a few blows may be given to the ball A with a punch to
10 form notches or dents therein, into which the point of the screw takes, and so keeps the socket firm against the ball.

Figure 10 represents a hypogastric belt or girdle with the Invention applied. This is a girdle with two bandages or springs R, R¹, and a pad P¹, fixed on a steel or other plate P. To the springs R, R¹, are attached the two volviform
15 or ball-and-socket apparatuses A, *a*, B, L, V, similar to those before described. The balls A, A, are attached to the bandage R, R¹, by nuts and screws *s*, *s*. The pad P, P¹, may be adjusted as before described to the required inclination and retained there by tightening the screws V, V. Hypogastric girdles may also be constructed with a single volviform apparatus.

20 The parts of the apparatus may have coatings of gold, silver, zinc, or tin deposited on them by electrotpe to prevent them from being injured by perspiration.

Having now described the nature of my said Invention and in what manner the same may be performed, I declare that I claim,—

25 First, the arrangement and combination of parts constituting my “volviform” apparatus herein-before described, whereby the wearer of the truss, bandage for hernia, or hypogastric girdle or belt, to which the same may be applied, may adjust the position of the pad or cushion thereof as he or she may find most convenient or suitable.

30 Second, the arrangement herein-before described of slotted shank or arm carrying the ball or rounded knob, and attached to the spring or bandage by screws and nuts, the slot allowing the truss, bandage, girdle, or belt, to be lengthened or shortened at pleasure.

Third, the arrangement herein-before described of the box, socket, or recess
35 intended for receiving the ball, and constructed in a single piece or in two pieces combined with the arm carrying the pad or cushion, and the arrangements for retaining the ball and socket in the position to which they may have been adjusted, all as set forth.

Falgas' Improvements in the Construction of Trusses, Bandages, and Girdles.

Fourth, the various modes herein-before particularly described, each in the arrangement and combination of parts of which the same consists, by means whereof the socket and ball are held firmly together in any desired position of adjustment.

In witness whereof, I, the said Adrien Ferdinand Benjamin Falgas, 5 have hereunto set my hand and seal, this Fourth day of February, in the year of our Lord One thousand eight hundred and sixty-two.

FALGAS. (L.S.)

Witness,

BRESSON,

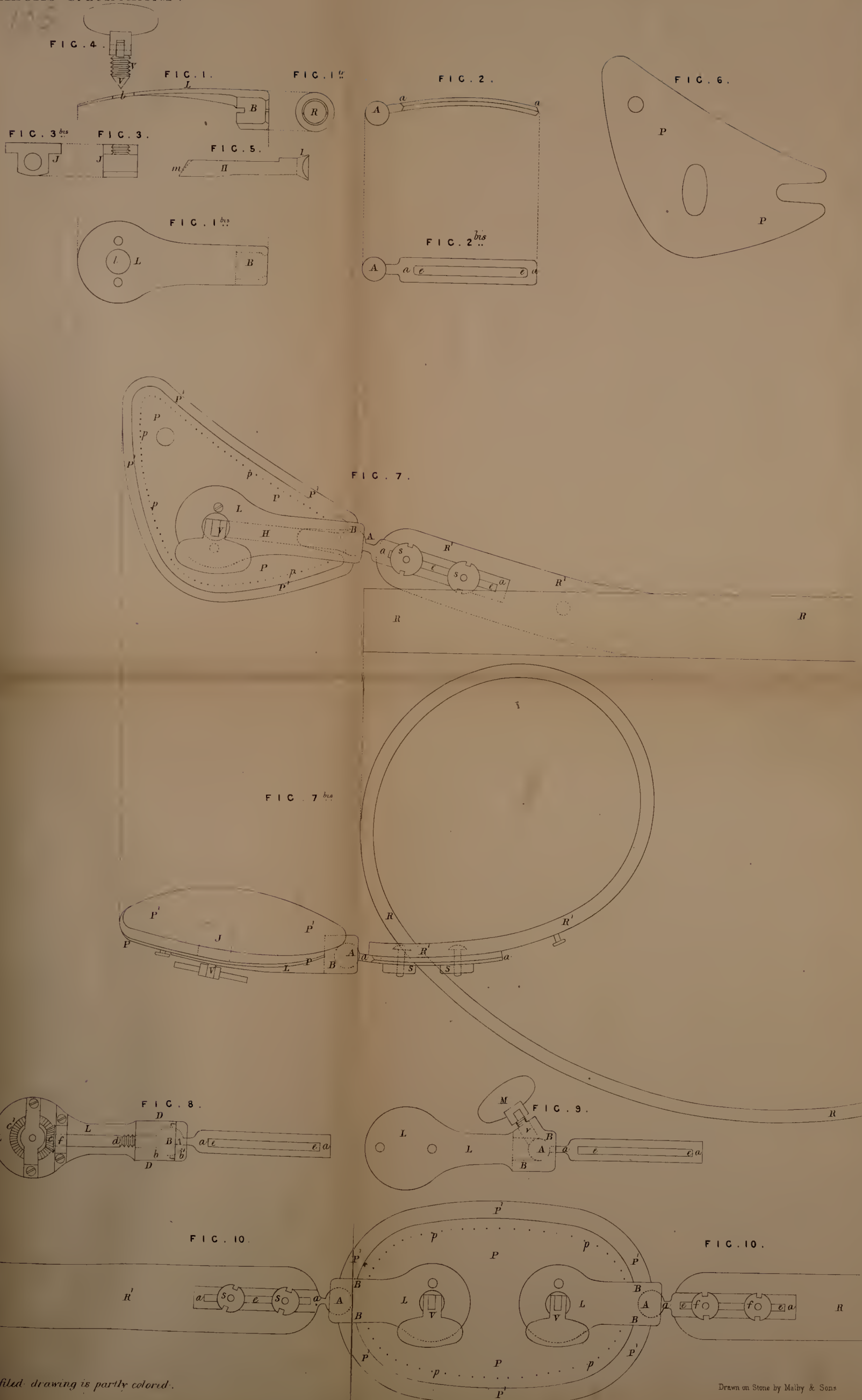
Ingénieur Civil, à Paris,

Rue de Malte, 51.

10

LONDON :

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1862.



The filed drawing is partly colored.

Drawn on Stone by Malby & Sons

